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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,570	10/31/2003	Nicholas Gerald Grey	100103.52885US	8422

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600 14TH STREET NW SUITE 800  
WASHINGTON, DC 20005-2004

EXAMINER
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CHIN, RANDALL E

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/697,570	<b>Applicant(s)</b> GREY, NICHOLAS GERALD	
	<b>Examiner</b> Randall Chin	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 35-93 is/are pending in the application.  
 4a) Of the above claim(s) 53-55 and 77 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-52, 56-76 and 78-93 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07012004; 07092004; 12032004; 02042005</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 53-55 and 77 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 01 September 2005.
2. Applicant's election of the species of Fig. 3, claims 35-52, 56-76 and 78-93 in the reply filed on 01 September 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference numeral **19** as shown in Fig. 2 is not in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because it is suggested that the **cleaning strip assembly** be labeled with a reference numeral in Fig. 2 for clarity purposes. Also, appropriate changes should also be made to the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

5. Claims 38 and 39 are objected to because of the following informalities:

Claims 38 and 39, "the flexible tabs" makes the claims confusing since claim 37 only recites "at least one tab" (line 2).

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 35-52, 56-76 and 78-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 59166126 (hereinafter Japan '126).

Japan '126 teaches a surface cleaning apparatus in Fig. 1, comprising a body having a forward compartment 7a and rear compartment at 26, an elongate rotatable brush 4 extending across the forward compartment, an electric motor 21 in the rear compartment 26, and a cleaning strip assembly 12 (Figs. 1 or 4) pivotably mounted on an underside of the body. Japan '126 teaches all of the recited subject matter with the exception of a belt connecting the motor and rotatable brush as well as a compartment or "tunnel" for housing the belt. The drive arrangement of Japan '126 from motor to brush would either be by gear or belt driven arrangement. It would have been well within the level of competence of one skilled in the art to have provided for a belt connecting

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the motor to the brush and a tunnel for enclosing the belt in order to drive the brush in rotatable fashion as either arrangement is old and well known.

As for claim 36, the cleaning strip assembly 12 comprises an elongate support member and a flexible strip extending radially from the support member along substantially the entire length of the elongate support member.

As for claim 37, the cleaning strip assembly further comprises at least one tab defined by the entire flexible strip **itself** oriented to contact the surface being cleaned during cleaning, the contact of the at least one tab with the surface being cleaned capable of causing the cleaning strip assembly to pivot between a cleaning position and an elevated position.

As for claims 38 and 39 (note claim objections above), the tab(s) can cause the cleaning strip assembly to pivot into a cleaning or elevated position when the apparatus moves in a forward or rearward direction.

As for claim 40, there is an intermediate compartment defined by a wall between the forward compartment and the intermediate compartment, a wall between the intermediate compartment and the rear compartment, and side walls (Fig. 1).

As for claim 41, it would have been obvious to one skilled in the art to have provided for a removable side wall (if not already included) in order to facilitate operation of the device.

As for claim 42, there is a cover 6 (Fig. 4).

As for claim 45, the wall 7e between the forward and intermediate compartments is inclined rearwardly in Fig. 1 (which is a relative term here).

As for claim 46, the wall (which could be 7d in Fig. 1) between the intermediate and rear compartments is considered closed and therefore “seals” the rear compartment from the intermediate compartment.

As for claim 47, a front part of the forward compartment is “movable” (the entire device is movable) to expose bristles 5 on the front part of the elongate rotatable brush at the front part of the forward compartment.

As for claim 48, the rear compartment is provided with ground-engaging wheels 3.

As for claim 49, there is a handle 29 rotatable about an axial direction (Fig. 1) of the handle to facilitate steering of the apparatus.

As for claim 50, the handle is pivotable about an axis transverse to the axial direction of the handle (see pivot arrangement in Fig. 1).

As for claim 51, Japan ‘126 clearly teaches a housing 1, an elongate brush 4 arrangement mounted so as to be rotatable about a longitudinal axis thereof and extending across the housing for contacting a surface to be cleaned, and a substantially continuous surface cleaning strip 12 extending across an underside of the housing (Fig. 1). Japan ‘126 further teaches movement responsive means including “friction engaging means” 14 (Fig. 1) adapted to engage the surface to be cleaned and movable in opposing first and second directions in response to movement of the apparatus in opposing first and second directions (see arrows a, a’ in Fig. 1) relative to the surface to be cleaned, movement of the friction engaging means “being transmitted” to the cleaning strip, and wherein movement of the apparatus in the first direction causes the

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cleaning strip to adopt a first orientation relative to the housing such that in use a substantially continuous edge of the cleaning strip contacts the surface to be cleaned, and movement of the apparatus in the second direction causes the cleaning strip to adopt a second orientation relative to the housing so as to raise the cleaning strip clear of the surface to be cleaned (as can be seen in Fig. 1).

As for claim 52, the cleaning strip is mounted on a support, as stated above, which is movable between first and second positions by the movement responsive means in response to movement of the surface cleaning apparatus.

As for claim 56, the cleaning strip and the friction engaging means are mounted on an elongate member 11a (Fig. 1) which is pivotably mounted (at 13) relative to the housing of the apparatus, whereby contact between the friction engaging means and the surface to be cleaned causes the elongate member 11a to pivot such that the cleaning strip adopts one of the first and second orientations.

As for claim 57, the cleaning strip 12 and the friction engaging means 14 project substantially radially from the elongate member (Fig. 1).

As for claim 58, the cleaning strip and the friction engaging means extend at different angles relative to each other.

As for claim 59, an included angle between the cleaning strip and the friction engaging means is deemed "substantially" 45 degrees (Fig. 1).

As for claim 60, to the extent of what a "tab" means, Japan '126 teaches such a "tab" 14 extending from the elongate member.



As for claim 61, one skilled in the art would find it obvious to make the elongate member out of a flexible material to avoid damage to furniture or walls.

As for claim 62, the cleaning strip and the friction engaging means are formed interally with the elongate member in the final state.

As for claim 63, the elongate member comprises a recessed groove and the cleaning strip 12 comprises a projection of complementary configuration adapted to retain the cleaning strip in the recessed groove (Fig. 1).

As for claim 64, the recessed groove and the projection are deemed "substantially T-shaped" (Fig. 1).

As for the dimensional limitations relating to the extension of the cleaning strip in claims 65 and 66, one skilled in the art would find it obvious to optimally select an appropriate value or range depending on the size of the apparatus itself.

As for claims 67, 68 and 69, there are means for inhibiting the movement (tip of wall 9 in Fig. 1) of the cleaning strip in the longitudinal direction thereof. A movable means would be obvious if the walls were removable themselves.

As for claim 70, the cleaning strip 12 comprises a flexible material.

As for claim 71, the friction engaging means comprises a flexible material (bristles).

As for claim 72, there is a motor 21 provided within the housing for rotating the brush arrangement.

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As for claims 73 and 74, the provision of a battery or rechargeable battery would be an obvious modification to one of ordinary skill in order to make the device more readily portable and/or prolong it's useful service life.

In order to avoid a repetitive explanation of claimed subject matter, claims 75, 76 and 78-82 are rejected similarly as above as the claimed subject matter parallels that already claimed

In order to avoid a repetitive explanation of claimed subject matter, claims 83-92 are rejected similarly as above as the claimed subject matter parallels that already claimed. It will be added however with respect to claim 93, a lower front region of the body 1 is considered "chamfered" in Fig. 1 such that when the apparatus is inclined relative to a surface to be cleaned, contact between the bristles and the surface to be cleaned can be increased.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Kress and Fischer are relevant to various sweeper constructions.

9. Any inquiry concerning this communication or earlier communication from the Examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The Examiner can normally be reached on Monday through Thursday and every other Friday.

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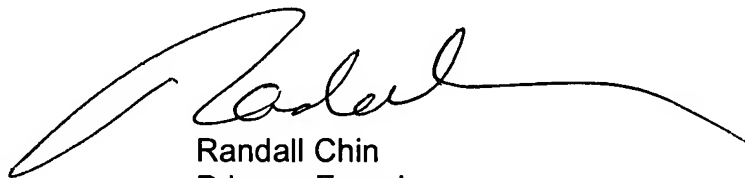
If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, John Kim, can be reached at (571) 272-1142. The number for Technology Center 1700 is (571) 272-1700.

The central fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Chin



Randall Chin  
Primary Examiner  
Art Unit 1744